

IN THE CLAIMS:

- 1 1. (Currently Amended) A system configured to simplify management of a clustered
2 storage system having a plurality of failover modes, the system comprising:
3 a user interface system that defines a plurality of failover modes, wherein each
4 failover mode automatically configures one or more ports on a selected storage system or
5 a partner storage system in response to a failover condition; and
6 a command set implemented by the user interface system and including a com-
7 mand for setting a user to set a cluster mode where the cluster mode includes at least one
8 of the plurality of failover modes.
- 1 2. (Previously Presented) The system of claim 1 wherein the user interface system com-
2 prises a command line interface (CLI) configured to support the command set.
- 1 3. (Original) The system of claim 1 wherein the command set further comprises an igrup
2 command that determines whether a set of initiators may utilize data access command
3 proxying.
- 1 4. (Original) The system of claim 3 wherein the set of initiators comprises at least one
2 fibre channel world wide name.
- 1 5. (Original) The system of claim 3 wherein the set of initiators comprises one or more
2 iSCSI identifiers.
- 1 6. (Original) The system of claim 3 wherein the igrup command sets an igrup option to
2 determine whether members of a set of initiators may use a partner port for proxying data
3 access command.

- 1 7. (Original) The system of claim 3 wherein the command set further comprises a cfmode
2 command that sets a cluster mode for the clustered storage system.

- 1 8. (Original) The system of claim 7 wherein the cluster mode enables the clustered stor-
2 age system to proxy data access requests received by a first storage system in the clus-
3 tered storage system to a second storage system in the clustered storage system.

- 1 9. (Original) The system of claim 7 wherein the cluster mode enables a first storage sys-
2 tem in the clustered storage system to assume an identity of a second storage system in
3 the clustered storage system.

- 1 10. (Original) The system of claim 7 wherein the cluster mode enables proxying of data
2 access requests received by a first storage system in the clustered storage system to a sec-
3 ond storage system in the clustered storage system and further enables the first storage
4 system to assume an identity of the second storage system.

- 1 11. (Original) The system of claim 1 wherein the command for setting a cluster mode
2 comprises a cfmode command.

- 1 12. (Original) The system of claim 1 wherein the user interface system further comprises
2 a graphical user interface having functionality to implement the command set.

- 1 13. (Previously Presented) A method for simplifying management of a clustered storage
2 system having a plurality of failover modes, comprising:
3 providing a user interface system; and
4 executing a command supported by the user interface system to set a cluster mode
5 for the clustered storage system, the cluster mode defining one of a plurality of failover
6 modes.

- 1 14. (Original) The method of claim 13 wherein the cluster mode comprises a partner
2 mode; and
3 wherein the clustered storage system is enabled to proxy data access requests re-
4 ceived by a first storage system in the clustered storage system to a second storage sys-
5 tem.
- 1 15. (Original) The method of claim 13 wherein the cluster mode comprises a standby
2 mode; and
3 wherein a first storage system in the clustered storage system is enabled to assume
4 an identity of a second storage system in the clustered storage system.
- 1 16. (Previously Presented) The method of claim 13 further comprising providing a GUI
2 implementing commands available through the user interface system.
- 1 17. (Previously Presented) The method of claim 13 further comprising providing a GUI
2 window for setting a cluster mode of the clustered storage system.
- 1 18. (Previously Presented) The method of claim 16 further comprising providing a GUI
2 window for setting a proxy option for an initiator group.
- 1 19. (Previously Presented) A system configured to simplify management of a clustered
2 storage system having a plurality of failover modes, the system comprising:
3 a user interface means for implementing a command line interface; and
4 means for setting a cluster mode, the cluster mode defining one of a plurality of
5 failover modes.
- 1 20. (Original) The system of claim 19 further comprising means for determining whether
2 a set of initiators may utilize data access command proxying.

- 1 21. (Original) The system of claim 19 wherein user interface means further comprises
- 2 means for determining whether a set of initiators may utilize data access command
- 3 proxying.

- 1 22. (Original) The system of claim 21 wherein the set of initiators comprises at least one
- 2 fibre channel world wide name.

- 1 23. (Original) The system of claim 21 wherein the set of initiators comprises one or more
- 2 iSCSI identifiers.

- 1 24. (Original) The system of claim 19 wherein the cluster mode enables the clustered
- 2 storage system to proxy data access requests received by a first storage system in the
- 3 clustered storage system to a second storage system in the clustered storage system.

- 1 25. (Original) The system of claim 19 wherein the cluster mode enables a first storage
- 2 system in the clustered storage system to assume an identity of a second storage system
- 3 in the clustered storage system.

- 1 26. (Original) The system of claim 19 wherein the cluster mode enables proxying of data
- 2 access requests received by a first storage system in the clustered storage system to a sec-
- 3 ond storage system in the clustered storage system and further enables the first storage
- 4 system to assume an identity of the second storage system.

- 1 27. (Previously Presented) A computer readable storage device having stored thereon
- 2 program instructions executing on a computer, for simplifying management of a clustered
- 3 storage system having a plurality of failover modes, wherein the program instructions
- 4 when executed by the computer perform the steps of:
 - 5 providing a user interface system; and

6 executing a command supported by the user interface system to set a cluster mode
7 for the clustered storage system, the cluster mode defining one of a plurality of failover
8 modes.

1 28. (Original) The computer readable medium of claim 27 wherein the cluster mode
2 comprises a partner mode; and

3 wherein the clustered storage system is enabled to proxy data access requests re-
4 ceived by a first storage system in the clustered storage system to a second storage sys-
5 tem.

1 29. (Original) The computer readable medium of claim 27 wherein the cluster mode
2 comprises a standby mode; and

3 wherein a first storage system in the clustered storage system is enabled to assume
4 an identity of a second storage system in the clustered storage system.

1 30. (Original) The computer readable medium of claim 27 further comprising the step of
2 providing a GUI implementing commands available through the user interface system.

1 31. (Original) The computer readable medium of claim 27 further comprising the step of
2 providing a GUI window for setting a cluster mode of the clustered storage system.

1 32. (Original) The computer readable medium of claim 27 further comprising the step of
2 providing a GUI window for setting a proxy option for an initiator group.

1 33. (Previously Presented) A system, comprising:

2 an interface that defines a plurality of failover modes for a clustered storage sys-
3 tem; and

4 a command set implemented by the interface, wherein the command set includes a
5 command for setting a cluster mode using one of the plurality of failover modes.

- 1 34. (Previously Presented) The system of claim 33, wherein the interface comprises a
2 command line interface (CLI) configured to support the command set.
- 1 35. (Previously Presented) The system of claim 33, wherein the command set further
2 comprises an igroup command that determines whether a set of initiators may utilize data
3 access command proxying.
- 1 36. (Previously Presented) The system of claim 35, wherein the set of initiators comprises
2 at least one fibre channel world wide name.
- 1 37. (Previously Presented) The system of claim 35, wherein the set of initiators comprises
2 one or more iSCSI identifiers.
- 1 38. (Previously Presented) The system of claim 35, wherein the igroup command sets an
2 igroup option to determine whether members of a set of initiators may use a partner port
3 for proxying data access command.
- 1 39. (Previously Presented) The system of claim 33, wherein the cluster mode enables the
2 clustered storage system to proxy data access requests received by a first storage system
3 in the clustered storage system to a second storage system in the clustered storage system.
- 1 40. (Previously Presented) The system of claim 33, wherein the cluster mode enables a
2 first storage system in the clustered storage system to assume an identity of a second
3 storage system in the clustered storage system.
- 1 41. (Previously Presented) The system of claim 33, wherein the cluster mode enables
2 proxying of data access requests received by a first storage system in the clustered stor-
3 age system to a second storage system in the clustered storage system and further enables
4 the first storage system to assume an identity of the second storage system.

- 1 42. (Previously Presented) A method, comprising:
 - 2 providing an interface that defines a plurality of failover modes for a clustered
 - 3 storage system, wherein the cluster storage system includes a plurality of servers;
 - 4 selecting a command supported by the interface to set a cluster mode for the clus-
 - 5 tered storage system, the cluster mode defining one of a plurality of failover modes; and
 - 6 configuring the clustered storage system into the selected cluster mode.
- 1 43. (Previously Presented) The method of claim 42, wherein the interface is a command
- 2 line interface.
- 1 44. (Previously Presented) The method of claim 42, wherein the interface is a graphical
- 2 user interface.
- 1 45. (Previously Presented) The method of claim 42, wherein the selected cluster mode
- 2 enables the clustered storage system to proxy data access requests received by a first stor-
- 3 age system in the clustered storage system to a second storage system in the clustered
- 4 storage system.
- 1 46. (Previously Presented) The method of claim 42, wherein the selected cluster mode
- 2 enables a first storage system in the clustered storage system to assume an identity of a
- 3 second storage system in the clustered storage system.
- 1 47. (Previously Presented) The method of claim 42, wherein the cluster mode enables
- 2 proxying of data access requests received by a first storage system in the clustered stor-
- 3 age system to a second storage system in the clustered storage system and further enables
- 4 the first storage system to assume an identity of the second storage system.

- 1 48. (Previously Presented) A system configured to simplify management of a clustered
- 2 storage system having a plurality of failover modes, the system comprising:
 - 3 an interface system that defines a plurality of failover modes for use in the cluster
 - 4 storage system automatically responding to failover, wherein each failover mode config-
 - 5 ures one or more ports on a selected server or a partner server in response to a failover
 - 6 condition; and
 - 7 a command set implemented by the interface system and including a command for
 - 8 setting a cluster mode where the cluster mode includes one of the plurality of failover
 - 9 modes.
- 1 49. (Previously Presented) The system of claim 48, wherein the plurality of failure
- 2 modes comprises a standby mode, a partner mode, a dual fabric mode, and a mixed
- 3 mode.

1 Please add new claims 50 *et al.*

1 50. (New) A system, comprising:

2 a first server configured with one or more ports to send and receive messages
3 from one or more clients and the first server connected to a first set of storage devices
4 and a second set of storage devices, wherein the first server is configured to own the first
5 set of storage devices;

6 a second server configured with one or more ports to send and receive messages
7 from one or more clients and the second server connected to the first set of storage de-
8 vices and the second set of storage devices, wherein the second server is configured to
9 own the second set of storage devices;

10 the first server further configured with an interface system that defines a plurality
11 of failover modes, wherein each failover mode automatically configures the one or more
12 ports on the first server or the second server in response to a failover condition; and

13 a command set implemented by the interface system and including a command for
14 a user to set a cluster mode where the cluster mode includes at least one of the plurality of
15 failover modes.

1 51. (New) The system of claim 50, where in the plurality of failover modes comprise a
2 STANDBY mode, a PARTNER mode, a DUAL_FABRIC mode, and a MIXED mode.

1 52. (New) The system of claim 51, wherein the STANDBY mode utilizes standby ports
2 on the first server and a conventional failover mechanism.

1 53. (New) The system of claim 51, wherein the PARTNER mode utilizes one or more
2 ports on the second sever for data access proxying.

1 54. (New) The system of claim 51, wherein the DUAL_FABRIC mode utilizes one or
2 more virtual ports on the first server to emulate additional active ports for clients.

- 1 55. (New) The system of claim 51, wherein the MIXED mode utilizes standby ports on
- 2 the first server and one or more ports on the second sever for data access proxying.